

Breaking the Sound Barriers of Disease: BioAcoustic Biology as a Viable Component of Integrative Medical Diagnostics and Treatment

Over the past 20+ years the pioneering field of Human BioAcoustic Biology, using the voice as a mathematical matrix, has begun to model the frequencies and architecture of human vocalizations to identify the innate numeric templates of the human body. Using the idea that the voice is a holographic representation of health and wellness, these non-invasive techniques are being advanced to the extent that a computerized Vocal Profile, using a system of Frequency Equivalents¹, can be used to accurately quantify, organize, interpret, define and extrapolate biometric information from the human voice. This information, in turn, provides the opportunity to predict, direct and maintain intrinsic form and function of the body.

This novel approach has provided an accumulation of significant data that until recently has been without an efficient biological framework of reference. The lack of a scientifically-based foundational theory of Human BioAcoustics has prevented the field from moving forward as quickly as one might expect. Although the research results are impressive, historians will likely look at what has been accomplished to date as rudimentary.

The emerging model of “Math as Medicine” being assembled from Human BioAcoustic research data has the potential to allow voice spectral analysis to be used to predict health issues from the very first cries of a newborn through the frequency solutions of disease and aging.

Vocal Profiling can be used as a tool to identify and interpret the dynamic, complicated frequency interactions within the body. The techniques have provided insight into the possibility that the math based biomarkers contained in the vocal patterns present a holographic representation of the human body.

Human BioAcoustics can most aptly be described as a cross between music therapy and biofeedback. It is related to music inasmuch as specific combinations of sounds are presented to elicit brain entrainment; but not necessarily sounds that would be considered musical by even the most lenient of critics.

Some of the successful applications include: 1) monitoring of nutrients and food requirements from an internal perspective to support optimal cellular health 2) evaluation of weak and strong muscles to optimize physical strength and stamina 3) pre-screening for indications of disease, stress and trauma 4) determination of bioterrorist substances and toxins in their genomic state before they become pathogenic and 5) the solution to muscle atrophy and bone deterioration that threatens to deter space

exploration. Vocal Profiling has the potential to determine the biometric frequencies designed to diagnose and provide dominion over optimal form and function.

When one considers the prospect of a medical paradigm having the ability to use the voice as a self-diagnostic tool to manage and restore health biologically through the entrainment of cells from the inside out, one quickly realizes the implications are staggering. Our biggest issue, if this new paradigm is verified and accepted, is what to do with all the resources and time we now spend on our health.

Vocal Profiling emerges as a Self-Diagnostic Tool

From thousands of case studies conducted by more than two hundred trained BioAcoustic Research Associates, the perception of the human voice as a Mathematical Matrix of the body has become a useful concept to examine the architecture and frequency environments associated with the numerical pathways of human biology and physiology. These predictable cascades are being used experimentally to identify the signature pathways of complex disease states.

Vocal Profiling originated with the premise that the brain generates and receives impulse patterns that can be measured through voice spectral analysis. These frequency impulses serve as directives to sustain structural integrity and emotional equilibrium. When these patterns are disrupted, the brain seeks to alert the body by manifesting symptoms that are interpreted as disease and stress.

Vocal Profiling proposes the idea that the body requires the presence of a full range of harmonious frequencies working cooperatively. Consider the body as a musical instrument. When even one note is out of tune, the result is often discordant. Tune the instrument and the sounds again become harmonious.

At present, only the number of practitioners and the acceptance, or lack of acceptance, by insurance underwriters, limits the scope and practice of Vocal Profiling. It wasn't until recently that computerization allowed BioAcoustic assessment to become a complementary tool to conventional wellness practices. These recent improvements in assessment time and presentation delivery have the potential to allow BioAcoustic Profiling to become a standard diagnostic tool.

The benefits of this type of analytical individuality could provide immediate, non-invasive medical modeling for predictive, diagnostic and prescriptive consideration. Targeted techniques would include, but not be limited to, remote diagnoses and treatment; assessment of nutritional requirements; evaluation of environmental toxins; screening for invading pathogen exposure; appraisal of genetic syndromes; evaluation of biochemical and metabolic conditions; muscle strength and weakness status; pre-vaccination risk factors analysis; and medication compatibility confirmation.

Pilot studies using low-frequency analog sound presentation based on homogenous groups have demonstrated efficacy for the following specific issues: bone and muscle concerns such as stress, strain, strength and trauma; Attention Deficit Disorder; Macular Degeneration; infertility and pregnancy issues; Post Traumatic Stress Disorder, Traumatic Brain Injury, Parkinson's, toxin exposure; autism; gout; metabolic disorders; arrhythmia and pre-vaccination risk factors; Epstein-Barr and Chlamydia Pneumonia exposure and identification.

Double blind studies, laboratory tests and studies based on comatose individuals, newborn and mentally challenged persons have begun to establish an evidence-based protocol for the study of biofrequencies.

Although the foundational principles of BioAcoustics are not yet fully established, the results are undeniable. From the preliminary research it appears that sound presentation can entrainment of brain-wave frequencies. In turn, these frequencies act as a support to the body until the body can maintain the required frequencies independently.

How Does Frequency, as Sound, Influence Bodily Form and Function?

It is well known, historically, that sound and rhythms have the ability to influence mood and behavior. Literature published in the field of music therapy is replete with data which proves that frequency in the forms of music, rhythm, resonance, vibration, magnetics, etc. can influence the body in a myriad of dramatic ways.

This is obvious and can be witnessed through predictable adrenalin responses to potentially dangerous sounds and to our hormonal responses to sexually explicit suggestions. We use sound to soothe our infants and then throughout life to stimulate and entertain. At the end of life funeral services are accompanied by dirges that have been expressly written to help the survivors move through grief.

A great deal of the response to sound is learned; but it is commonly understood that human newborns will demonstrate a startle reflex to loud, unfamiliar sounds. Not only does the human infant unconsciously respond but newborn animals respond to unknown or startling sounds as part of their survival instincts. Animals, like humans, learn to ignore habituated sound. Research also demonstrates that animals and plants respond differently to different types of music.

Sound, music, rhythm and song are all used to create mood for entertainment purposes. There are books written with listings of which songs and note combinations elicit specific emotions.

Candace Pert skillfully concluded, in her revolutionary book, *Molecules of Emotion*, that a biological relationship exists between the body and mind.² Her research clearly shows

that sensory influences shape the biochemical and structural characteristics of the body. Particularly, peptide based proteins have been identified as the molecules of emotion.

This has been an enigma to scientists and a never-ending query of philosophers and poets. The answers range from “love is all there is” to a totally mechanistic view of the body. Any authentic healing mechanism probably lies somewhere in between.

Sounds have the ability to make your skin prickle, make your knees weak, make you perspire, cause the heart to beat in an irregular fashion, cause loss of control of the bladder, cause you to be sad, tense - to name just a few. The sensory input of sound (via voice, music, noise, rhythms) has a demonstrated influence on the form and function of the body. Probably one of the most common examples of this phenomenon is the hormonal change that a young man experiences as he moves through puberty. These changes certainly have an influence on the voice.

The Universe as Frequency

Science has long held the model of the Universe as frequency based; everything is vibrating. Our world is in a state of constant oscillation. We interpret these vibrations through our senses but each pulsation reaches the brain as a frequency representation. When the eye perceives the frequency vibrations of light, the eye changes those vibrations into electrical-chemical energy (another form of frequency) and sends those frequency impulses to the brain. The brain, receiving the information as frequency, routes that range of frequency to the appropriate area of the brain to interpret the input as visual data. The same sequence of events takes place when we are exposed to aromas, auditory input, tactile stimulation, emotional situations and so on.

Ancient, as well as modern, religious practices incorporate sound (frequency), vibration and rhythm into their rituals of worship. Science dictates that the lowest common denominator of all structure, the atom, is energy – measured as frequency. Therefore, from our beliefs to our physical reality, frequency is the basis of our universe.

Essentially all forms of curative intervention influence the frequency systems of the body. There are many forms of medical acoustics: X-rays, sonograms, ultrasounds, MRIs, CAT scans, TENS units, etc. One of the most common medical devices based on frequency medicine is the heart pacemaker. We are slowly learning to use frequency to help the body diagnose and heal itself. When we learn the governing patterns of each person's individual frequency signatures, we will be able to interpret and have dominion over all aspects of our mechanical and biochemical conditions and likely, our emotional issues.

Human BioAcoustics and the World as Sound

Having no benefit of modern physics, mathematics or modern medical science, Pythagoras [of Samos in the 6th Century B.C.] is credited with the observation that the body is subject to the same harmonic laws that govern music³.

Einstein proved that there are no solids; that we exist in a universe that consists entirely of energy. Frequency defines this universe and can be used to characterize the body through predictable mathematical relationships. The techniques of Human BioAcoustics have the ability to record the frequencies of the body via the voice and to return those frequencies using low-frequency ambient sound.

Brian Butterworth, and Keith J. Devlin have both attempted to prove that math is the one fundamental language of the human race^{4, 5}. In 1623 Galileo Galilei is credited with writing, “*The great book of nature can be read only by those who know the language in which it was written. And this language is mathematics*”⁶.

These ideas make sense given that the basic concepts of mathematics, the model - that one is one plus two equals two - is the same for every culture. In other words, if we want to talk to the body, we must speak the language of the brain; which is math – expressed as the universal dynamic of frequency wave patterns.

Joseph Fourier demonstrated that the frequencies of the voice could be expressed as mathematical algorithms⁷. Vocal sounds are made possible by the oscillations of the vocal cords located in the voice box or larynx. The muscles of the larynx are innervated by branches of the laryngeal nerve, which is a branch of the vagus nerve. The vagus nerve is the 10th cranial nerve and is responsible for the sensations of the larynx which is the main nerve of the parasympathetic nervous system^{8, 9}.

Through the entrainment of the vagus nerve with the vocal cords, a direct message pathway from the vocal cords and the brain seems apparent. The sounds of the voice, therefore, can be seen as representations of the parasympathetic nervous system. Together the sympathetic and parasympathetic nerve branches monitor and manage body functions.

These models of thought from ingenious minds down through the ages, show that both science and philosophy have attempted to correlate the relationships between music and health, math and music and ultimately math and health.

Frequency as Language

Our brain communicates using the language of math expressed as frequency. The brain receives and assigns signals to specific areas for interpretation and possible reactions.

Everything that happens to the body reaches the brain as a biofrequency that is then sorted, routed and assigned an interpretation designation. Our brain uses a network of frequencies to internally communicate. We use a network of vocal sounds (and gestures) to communicate externally. Both are ranges of frequency, nerve impulses and the voice respectively. When we speak our vocal cavity vibrates setting up a resonance that can be felt in many structures of the body. These resonant frequencies have a dramatic influence on the body as we speak and listen.

This dual incoming and outgoing frequency exchange of the voice and ears can be used to evaluate and interpret the frequency relationships within the body to represent who we are, our health and our well-being. This identifying frequency is called a Signature Sound by many school of ancient thought. It is actually a combination of frequencies and could be more accurately described as a Signature Octave or Chord.

There is also an identifying sound that can be measured through the ear canal – the oto-acoustic emission. Much has been written about this phenomenon, particularly by Guy Berard, MD¹⁰. He reports that the ear has a full range of frequencies, which can be monitored, recorded and retrained; with the effect being the reversal of diseases such as autism. According to research reports, the idea is simple and effective; change the frequency and the body responds by eliminating the disease.

James Cowan reports in *Environmental Acoustics* that the ear canal is, on average, a tube about 1.2 inches in length depending on age and physiology¹¹. The size of the ear canal, which is open on one end and closed by the eardrum on the other, actually resembles a pipe organ and can resonate between 2700 and 3500 Hz (that equates to the notes of F through A in modern Americanized music). Since the tubular structure of the ear is only capable of creating a small portion of the entire musical scale, it is obvious that oto-acoustic emissions are created somewhere other than the ear canal itself.

This individually identifying frequency emission is measurable and has been studied extensively by Dorinne Davis of the Davis Center located in NJ. Davis has cross-referenced BioAcoustic Vocal Profiling with oto-acoustic emissions using a heterogeneous group of subjects. She found that 100% of the subjects had oto-acoustic emissions that specifically matched an identified point on the vocal print as being a stressed frequency¹². This is statistically relevant when you consider that 100,000 frequencies are considered but a BioAcoustic vocal scan only chooses up to 24 possible points as significant. When the results of BioAcoustic research are combined with the on-going studies being carried out by Davis with oto-acoustic emissions, it is obvious that both the ears and the voice have the ability to identify frequencies of stress.

Although BioAcoustic research has yet to substantiate the hypothesis, consideration should be given to the possibility that we learn to derive meaning from ambient sound by interruptions in the oto-acoustic emissions. Much like a pebble plopped into still water; sound wave interruptions send a binary signal that is assigned meaning through past experience.

Does Frequency Expressed as Vibration Influence the body?

James Oschman offers this explanation: “At an atomic scale, physical contact between two molecules has less meaning than the ways they interact energetically. As a hormone approaches a receptor, the electronic structures of both molecules begin to change. Bonds bend, twist and stretch; parts rotate and wiggle. The orientation and shape of the molecules change so that the active site of the hormone can approach the active site of the receptor. The recognition of a specific hormone by a receptor depends on resonant vibratory interactions, comparable to the interactions of tuning forks¹³.”

Oschman further states that “the rotation of a charged amino acid sets up an electromagnetic field that entrains rotations of the corresponding amino acid on a second protein. The second protein also emits an electromagnetic field that affects other proteins¹⁴.” Specifically cited was the Diapulse device which emits 27 MHz and has been extensively researched. Clinical trials show that the Diapulse can reduce swelling, accelerate wound healing, stimulate nerve regeneration and reduce pain.

This demonstrates that biochemicals communicate and that external frequencies have a healing influence. The quandary then becomes the identification of the avenue by which the body prompts these internal healing frequencies?

Oschman references the work of K.J. Pienta and D. D. Coffery from a 1991 paper entitled “Cellular Harmonic Information Transfer through a Tissue Tensigrity-Matrix System” to prove the point that the body dynamically communicates via a frequency based matrix¹⁵.

“Cells and intracellular elements are capable of vibrating in a dynamic manner with complex harmonics, the frequency of which can now be measured and analyzed in a quantitative manner by Fourier analysis. ...These vibrations can be altered by growth factors and the process of carcinogenesis. It is important to understand the mechanism by which this vibrational information is transferred directly throughout the cell. ...The vibrational interactions occur through a tissue matrix system consisting of the nuclear matrix, the cytoskeleton, and the extracellular matrix that is poised to couple the biological oscillations of the cell from the peripheral membrane to the DNA through a tensegrity-matrix system.”

Valerie Hunt, Ed.D., U.C.L.A. Professor Emeritus, respected neurophysiologist and author of several books on the subject of bioenergy, is a pioneer in the field of human energy fields. She believes that all living systems are composed of vibrations, which organize themselves into fields as we interact with our environment, our emotions and other people¹⁶. She has shown a direct correlation between healing and the vibrational rates of human energy fields. For those of you who find the idea of an energy field a bit esoteric, please note that without energy your body would be inert. The body’s energy field animates your every move.

William Tiller, Ph.D., Chairman of Stanford's Materials Science Department, has carried out extensive research based upon the vibrational signals of the body. He writes, "Each atom and molecule, cell and gland in our body has a characteristic frequency at which it will both absorb and emit radiation". Each cell generates its own minute vibrational signals from within that must stay in resonance with every other cell for the body to remain healthy¹⁷.

Two Cornell physics graduate students, Barry Stripe and Mohammad Rezaei, reported in the June 1998 issue of Science that each atom has an identifying "energy level" that can be used to identify individual molecules and unknown chemicals by measuring the vibrational signatures¹⁸.

From many fields of study, both conceptual and established, the premise that the body is based on, responds to and is influenced by frequency is increasingly becoming an accepted reality.

The Concept of Entrainment through Cellular Oscillation

The concept of entrainment in music is common. If one string of an instrument vibrates, the remaining strings will set up a resonant harmony with the original vibrating string. Metronomes set in motion manually will fall into temporal alignment – that is, they tend to perform their motions in sync with one another. When we take pleasure in music, our body begins to move in time with the rhythm. Hormonal entrainment has been observed among women who work together; their menstrual cycles will often synchronize.

Entrainment of the vocal cords by the vagus nerve is an accepted physiological fact^{19, 20, 21}. The vagus nerve is the tenth of twelve cranial nerves that provide communication pathways from the lower organs to the brain. The vagus nerve is also responsible for sensory innervations from the larynx to the vocal cords and the motor signals that vibrate the vocal cords.

Vagus nerve therapy through implanted vagal nerve stimulators shows that stimulation of the vagus nerve changes the voice. Studies conducted at the University of Chicago Hospitals have shown that direct stimulation to the vagus nerve can prevent seizures known to be caused by chaotic neuron firings in the brain²².

The importance of speech signals to evaluate mental and physical status has long been used as a scientifically reliable method of objective assessment of psychophysiological stress, cardiovascular health and aging^{23, 24, 25}.

The vagus nerve connection also lies within the province of philosophy and has been espoused by noted theosophist Alice Bailey²⁶. The ancient practices of Yoga and Gi Gong teach that stimulation and relaxation of the vagus nerve is healthful²⁷.

From esoteric philosophy to modern science the connection between the vagus nerve and health was espoused as a reality, yet no one knew how to quantify the information to allow the development of an interactive, precise protocol for interpretation and use. Using voice spectral analysis to evaluate the physical and biochemical status of the body is a logical combination of using the vagus nerve via the vocal cords to convey internal information through an external source, the voice, for measurement.

Human BioAcoustics stands between these two realms of thought and is often accused of being too esoteric by the scientific field and too scientific by the philosophical genre. The domain of BioAcoustics exists as a combination of the inspired creativity of musical formats and the integrated scientific evaluation for health, wellness and self-healing outcomes.

Sound, Music and Mathematics as a Healing Modality

Using frequency in such forms as sound, color, music and rhythm has long been an esoteric avenue to support physical and spiritual health. Boaz reported in Eco Homo that the archeological evidence left by the Upper Paleolithic culture, which is estimated to have existed circa 30,000 BC, indicates that these ancient musicians used flutes to match resonant frequencies found in caves²⁸.

As man evolved, music became levels of intricate harmony nestled within structures of great elegance. Professor Susumu Ohno, of Beckman Research Institute, proposed that musical composition and human DNA are both governed by the same patterns of repetition. He states in *Immunogenetics* that “the all pervasive principle of repetitious recurrence governs not only coding sequence construction but also human endeavor in musical composition.”²⁹ It is obvious to anyone listening that when human DNA is converted mathematically to frequency sequences, the result sounds musical.

Dr. David Schwartz, of Duke University in North Carolina, has provided many clues as to how music and speech have evolved. His team of researchers found that the mathematical speech patterns of all languages cluster at the designated points assigned as the musical notes and scales of that particular culture³⁰.

Vocal Profiling has always emphasized the significance of the harmonic balance of notes of a scale relative to the study of Human BioAcoustics. To learn that independent researchers have found supporting evidence which further confirms the postulates of BioAcoustics is, indeed, refreshing.

Such convincing evidence shows that using sound to facilitate change within the body is an ancient perspective. Using sound to seek dominion over the body has been a cherished part of almost every human culture but these efforts were often surrounded with superstition and mysticism. It wasn't until computer technology and instrumentation was developed to manage the massive amount of data required that the vibrational mathematics of the body could be used to individually diagnose and

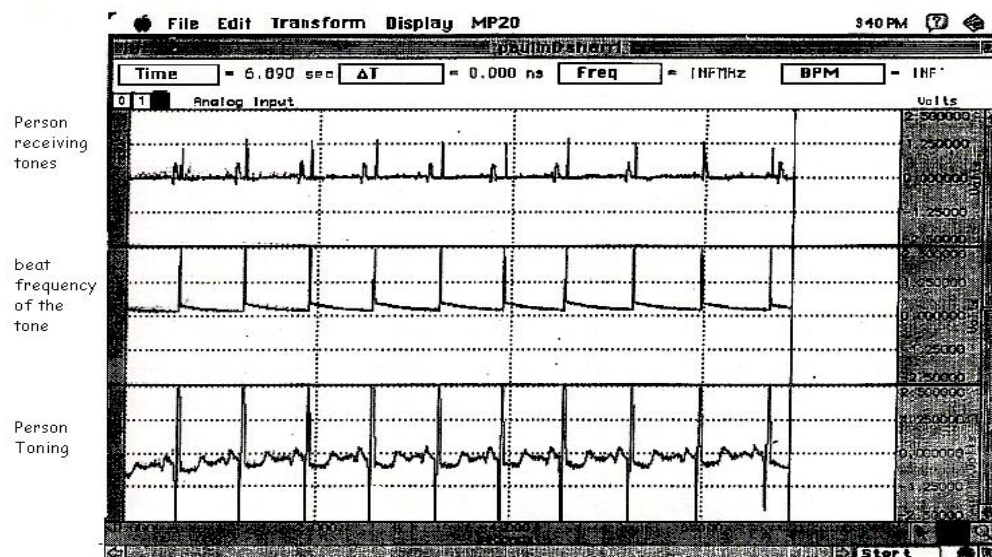
prescribe. Using the body's own sound system as a foundation, the ears and skin perceive sound; the voice reproduces it.

Vibration is to Brain Frequencies as Heart is to Rhythm

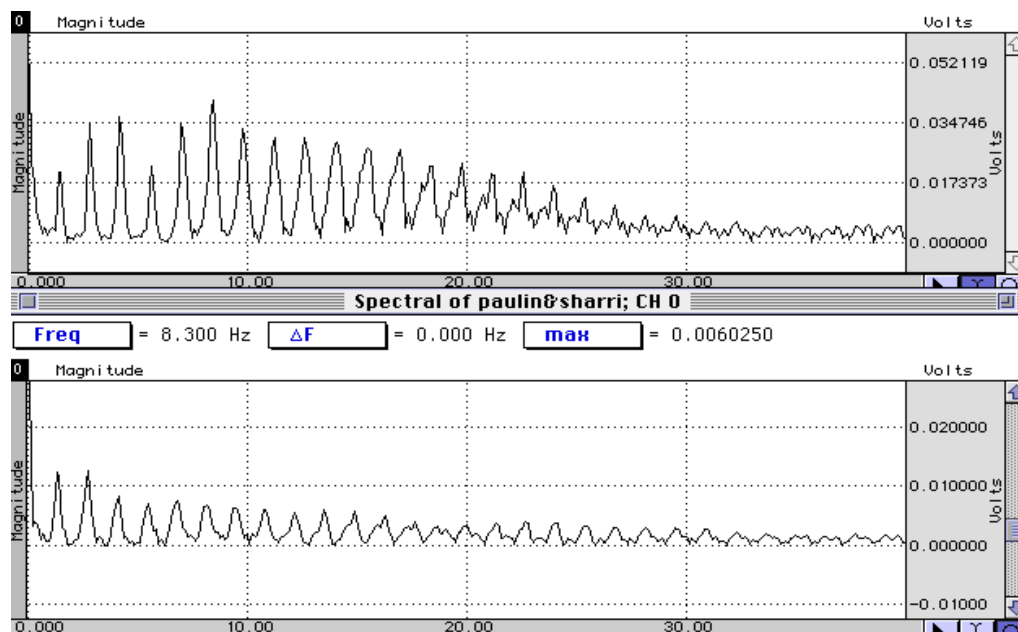
Entrainment is also a concept used in Human BioAcoustics when ambient sound formulations are presented to a client.

The following is a graph that depicts three sets of synchronized oscillations. The heart beat of the person being "toned to" is represented by the top line. The middle graph is the beat frequency of the tone being presented. The bottom line is the heartbeat of the person doing the toning. It is obvious that the hearts of both the toner and the person being toned to, have entrained to the tone represented by the middle line. The synchronization seems to be instantaneous when a competent toner begins to vocalize a sound.

Actual EKG Data - heart rhythms synchronized of a Toner, a tone and a person receiving tones



The next graph is of brain waves that were taken at the same time as the heart beat entrainment data was gathered. The brain waves of both the toner and the person being toned to, have synchronized showing entrainment through the vocal presentation of ambient sound.



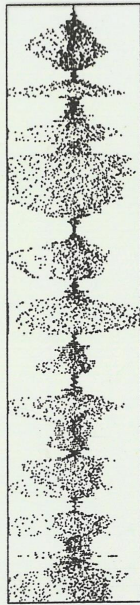
Human BioAcoustics uses this same principle. Specific frequency combinations entrain the brain waves; the rhythm entrains the heart. When the heart and brain are functioning as one unit, healing is often the result. This has been extensively researched by the Institute of Heart located in Boulder Creek, California³¹.

The formulations used for Human BioAcoustic sound presentation are triadic in nature. The Frequency Equivalent is combined with an Energy Equivalent. These two frequencies are then united in a specific configuration that is presented for evaluation during tone trials. The sequence can be compared to preparing your car for locomotion. You are required to turn on the ignition (identify the Frequency Equivalent); engage the gear (the sequenced formulation combination) and finally apply pressure to the accelerator to supply the engine with fuel, which will ignite, to provide the power (the Energy Equivalent).

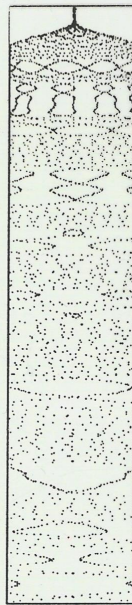
Intention as a Requirement for Entrainment

During experiments (including those above) that produced entrainment the concept of intention was considered. Below are voice wave forms of the same toner compared to normal vocal prints; a wave form taken when the toner was asked to think about church bells; a wave form when the toner was asked to think about and discuss a religious building; a wave form taken as the toner was thinking about clasped fingers and finally a comparison of magnetic strip patterns and the toner's voice.

CREATING SOUND ENVIRONMENTS



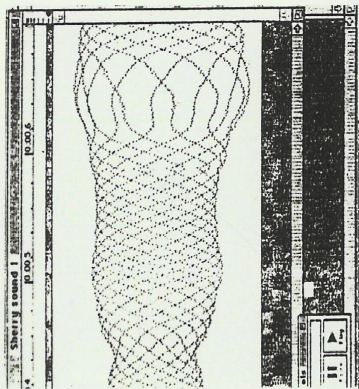
Ordinary Vocal Print



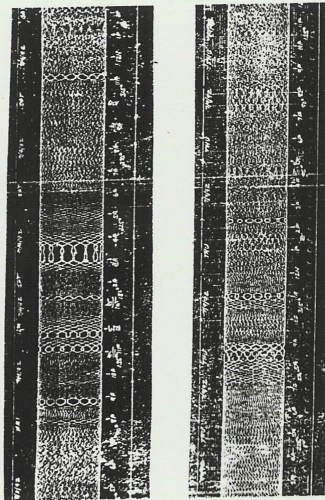
Sharry's Voice depicting church bells



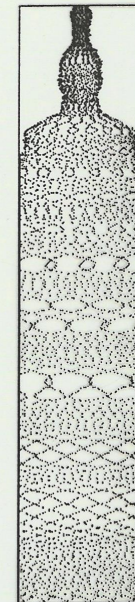
Sharry's Voice as she viewed a religious temple



Vocal Print shows clasp fingers that Sharry used as a point of concentration



Electromagnetic strip graphs of emissions from our planetary system



Sharry's voice showing similar patterns

Some of the above vocal prints are complex sine waves, something supposedly impossible for a human voice to produce. The mathematical configurations of these prints are the matrix principles upon which Human BioAcoustic formulations are based.

These wave forms indicate that a toner can intentionally create a “sound image” using sine waves produced by the voice. This translates to the idea of intention as a component of healing and certainly needs further exploration.

An example of this was a young man who had been in a motorcycle accident, which severely damaged his lower legs. One issue was his inability to lift the big toe of his right foot. BioAcoustic evaluation identified the Frequency Equivalent as being that assigned to the soleus muscle. He attempted valiantly to lift the toe autonomously without success. As we presented the ambient sounds without telling him, he excitedly responded, “I got it. I got it.” The sound presentation was discontinued (again without informing him) causing him not to be able to intentionally lift the toe. With sound support, he was gradually able to control the toe muscles. It seems obvious that the toe is being trained to respond to the BioAcoustic sound presentation.

The idea of entrainment is well established in the fields of biofeedback, music and medicine. Research supports the notion that the body responds physiologically to sound and frequency through the achievement of cyclic entrainment. “Resonant entrainment of oscillating systems is a well understood principle with the physical sciences.”³²

The Self-Healing Body

The body has the ability to self-diagnose, self-prescribe and reorganize according to its own intrinsic information! If this were not a true statement, the body would neither repair nor regenerate itself. The healing of wounds and bones, recovery from a disease and the cycles of hormones, sleep and hunger would be totally implausible. Certainly the idea of generating an entirely new human life during gestation would not be possible without a self-instructed, reproductive directive functioning independently within the biological terrain of the body.

Continuous networks of biological signals, called biofrequencies, provide information and direction to produce and reproduce inherent form and function. Tapping into these self-healing biological pathways from brain to neuron to cell has long been a goal of scientific medical investigations as a way to provide and promote optimal health.

These observations are obvious, but who, or what, has dominion over these processes? Why has medical science not been able to completely access and explain this internal alchemy? In our limited wisdom, should we have access to knowledge of such potent significance? The answer may not be obvious but it is inevitable. If such a unifying premise were to exist it would contain not only a diagnostic component but also a method of management and resolution!

If such an operative prescription for maintenance and renewal could be accessed, it would permit dominion over the innate processes of the body that are mandatory for rejuvenation; nutritional and structural requirements, appropriate detoxification systems and potentially, perpetual regeneration. If, in addition, that system could predict how

the body would react based on genomic, environmental and internal stimuli, it would be an incredible advancement in the world of medicine.

Math concepts used to construct BioAcoustic formulations are associated with the Pythagorean theory of string harmonics. Today modern String Theorists postulate that the universe is made of uncountable, infinitesimal strings that group together to create matter but those same scientists readily admit that they have inadequate information pertaining to how the strings actually create the DNA of life.

Science has advanced that each electrical nerve impulses are managed by magnetic potential. When examining the math relationships of BioAcoustic Biology, it seems obvious that the interactions are being measured and managed by the magnetic resonance of sound harmonics. This could be seen as being akin to the management of “the field” surrounding each cell; and in turn each individual as described the Bruce Lipton and Lynn McTaggart in their respective works, *Biology of Belief* and *The Field*.

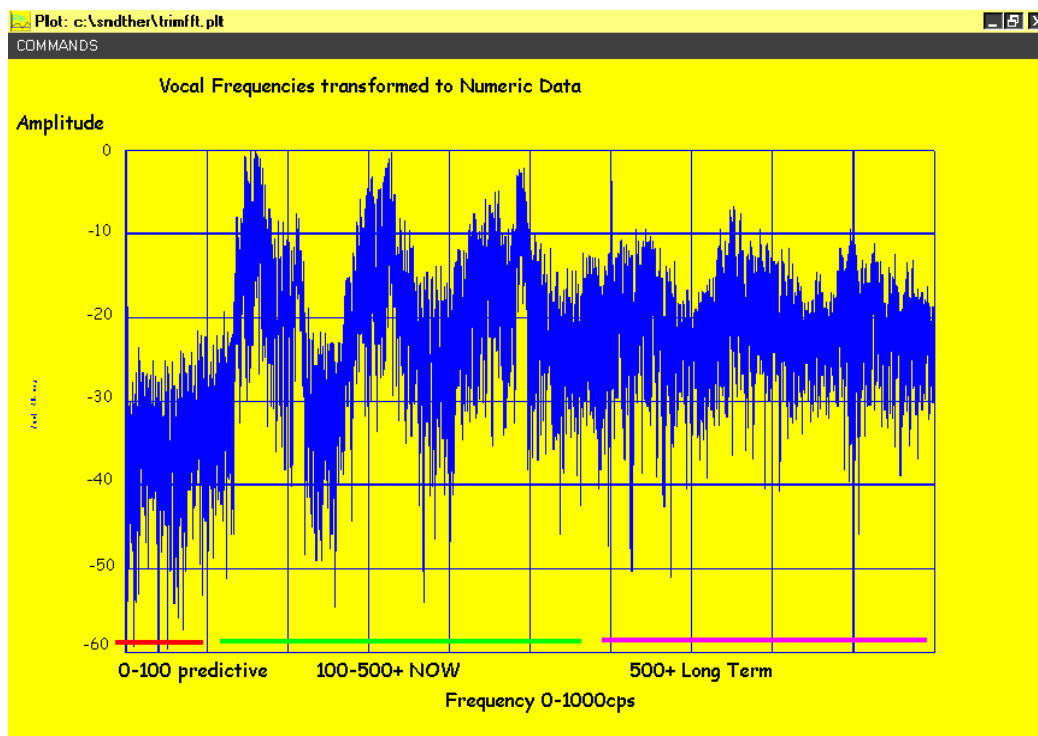
BioAcoustic evaluation can predict the outcome of a frequency presentation which in turn indicates that BioAcoustic formulations may be the answer to the regulation of what is created by DNA Strings. History may view BioAcoustic Biology as the move from fractional to a quantum concept of health.

The Mechanics of Human BioAcoustics

The protocol for Human BioAcoustics is a two part process: Vocal Profiling and Sound Presentation. Vocal Profiling offers interpretative information and can stand independently as a valuable assessment tool. Sound Presentation provides the management phase through brain wave entrainment using low-frequency, ambient sound.

A. Vocal Profiling

Using a 44 second computerized vocal sample, the frequencies and architecture of the voice are individually analyzed and used to create a multiple page report that can be used to examine the Frequency Equivalents™ (FE) of the biochemical pathways and physical structures of individual human biology. Report options include but are not limited to: muscles, toxins, genes, proteins, pathogen exposure, biochemicals, nutrients, immune and metabolic issues, vaccination safety and other risk factors evaluated in terms of Frequency Equivalents.



Vocal Fast Fourier Transform (FFT) showing Predictive, NOW and Long Term frequency ranges.

Each report can be used by trained personnel to provide predictive and immediate, non-invasive information for individual health and medical management in term of FEs and brain wave entrainment. The vision for the future is to create frequency templates using computers to automate the assessment. At present there are 1000's of biofrequency templates that have been organized into nearly 100 softwares.

At present there are options for predictive measurements which have been verified in an impressive number of case studies.

Medical Lab Tests verify BioAcoustic Frequency Equivalent™ Review

Below is a BioAcoustic Frequency Equivalent Report of a volunteer. The computerized report indicated that a thyroid issue might be indicated. Medical lab reports ordered by the client's physician confirmed the BioAcoustic observations. After being prescribed the appropriate medications by his physician, the client reported increased energy, an improved sleeping routine and memory improvement.

BioAcoustic Genesis Professional - Frequency Equivalent™ Report

Thyroid Client #7-12

PROVIDER LISTING

The following Frequency Equivalents™ have been identified

DIR STATUS	NAME	CATEGORY
L	Liothyronine Sodium	Biochemical/thyroid
L	Tri-Iodothyronine/T3	Biochemical/thyroid
L	Liothyronine	Biochemical/thyroid
S	Tri-Iodothyronine/T3	Biochemical/thyroid
S	Liothyronine sodium	Biochemical/thyroid
S	Liothyronine	Biochemical/thyroid
S	Thyroxine/T4	Hormone
L	Liothyronine- T3	Hormone/thyroid
S	Liothyronine- T3	Hormone/thyroid

[key: S = unbalanced; L = low; H = high]

BioAcoustics and Social Issues

Not only can biochemical issues be displayed by BioAcoustic vocal patterns but social issues, or what we thought were social issues, are observable as well. For example:

- Teenagers often build up an overabundant, intolerable level of the most common frequencies belonging to the parents. This would indicate that the recalcitrant behavior, about which nearly all parents complain, is actually a design of nature to separate parents and their children. The exception is the child who is of opposite brain dominance than the parents – this child will remain at home forever, if allowed.
- A woman who has just been beaten by her mate will often go back to that companion if he has the frequencies that she needs to feel complete. Each person has a set of frequencies that are more and less abundant in their vocal print. When we meet someone with the same dominant notes, we may tend to clash

with that person. When the new acquaintance has the frequencies we need, there may be an immediate attraction. It is mathematical as well as hormonal!

- A frequency can represent a muscle as well as a compound. Women tend to admire broad shoulders, a strong chin and a flat stomach. The Frequency Equivalents responsible for the traits above are also the Frequency Equivalents of several male sex hormones. Are we attracted to the biological structure or does the attraction come from the FEs of the male hormones which would indicate strong masculine genetic traits?

BioAcoustics and Biochemical Issues

Other biological issues often have mathematical implications:

- BioAcoustics has shown a strong relationship between the measles vaccine and peripheral neuropathy (numbness in the hand and feet); autism and hepatitis; autism and zonulin; pertussis and bioflavonoids; Vitamin A and autism; and polio with the SV40 vaccine and immune disorders
- The frequencies representing calcium and magnesium, when combined, produce the bone matrix protein. Calcium and magnesium are required for healthy bones.
- Uric acid (gout associated) and glucose are common factors for diabetics. Uric acid and glucose have a common Math Matrix: A Xanthine oxidase inhibitor that is often prescribed for gout. Xanthine is involved in free radical production associated with diabetes.
- Snoring is associated with diabetes and heart disease. The muscles that are involved in snoring have direct FE associations with insulin and the biochemistry of the heart.
- Anthrax pathogenic infiltration and the common cold have very similar Frequency Equivalents. They also have very similar initiating symptoms.
- Etiocobalamin (a form of B12) and the vertical muscle of the tongue are not the same FE but are nearly always found together within the charts of persons who have been diagnosed with Lou Gerhig's disease both singly and in combination with Lyme Disease. In both cases the control of the tongue muscles are usually involved and etiocobalamin seems to be a significant support for muscle strength and integrity.
- The body produces hyaluronic acid using the amino acid proline and Vitamin A. When one combines these two FEs the result is the FE of hyaluronic acid.
- Sexual response, or the lack thereof, can be traced mathematically to the pathway that is causing the reaction. BioAcoustic pilot studies have shown that libido can be increased by identifying and controlling sexual hormone response by the use of frequency presentations.
- The Fireman's cough, which was common in many New York, 9/11 emergency workers, can be traced to a fire retardant that has the same FE as the throat muscles. In addition the same FE identifying the fire retardant relates to early

onset breast cancer frequencies. Given more data, we might be able to predict that a higher incidence of early onset breast cancer will occur in the population surrounding ground zero.

- There are 100,000 possible frequencies that can be chosen from a vocal print. Several times a gene that was decoded for a particular case study appeared among the 24 points pulled from a vocal print of a person who had been diagnosed with that particular gene stress.
- Anecdotal though it may be, at least three people (including an RN and a MD) credit BioAcoustic sound presentation with stopping episodes of anaphylactic shock from bee stings and allergic reactions.

Human BioAcoustics has provided a foundation to substantiate the Mathematical Matrix of FEs emulate the structure, genetic make-up and biochemistry of the body.

B. BioAcoustic Sound Presentation

The autonomic nervous system, through billions of neural interactions, is responsible for the monitoring, maintenance and stasis of every minute detail of individual existence.

This regenerative process is not limited to sentient beings. Therefore this course of development is not necessarily a feature of intention, advanced cognitive planning or something that is under conscious control. If sexual intercourse occurs within the appropriate time frame, without preventative intervention, pregnancy will likely result. The body, independently, knows how to handle this biological feature. All creatures large and small, brained and brainless, reproduce in some way. If reproduction did not happen, that organism would cease to exist in one generation.

The actions and reactions of the autonomic nervous system are largely involuntary. So how does the body “know” how to act, how to regenerate, how to repair? What system is involved? Is it pure mechanics? Are we simply organic robots?

Mankind, in his quest for qualitative and quantitative enlightenment, has divided the nervous system of the body into several layered branches beginning with the peripheral nervous system and the central nervous system. The peripheral nervous system is further divided into the sensory-somatic nervous system and the autonomic nervous system. The autonomic nervous system consists of sensory neurons and motor neurons that run between the central nervous system and various organs.

The autonomic nervous system is divided into the parasympathetic and sympathetic nervous systems. These two regulatory agents monitor and regulate the actions and reactions of the body.

SYMPATHETIC	PARASYMPATHETIC
(Spinal pathways)	(Vagus nerve)
Stimulates heartbeat	Slows down heartbeat
Raises blood pressure	Lowers blood pressure
Dilates the pupils	Constriction of the pupils
Shunts blood away from skin	Increases blood flow to skin
Inhibits peristalsis in GI tract	Causes peristalsis of the GI tract

When we anticipate eating a favorite dessert, the sympathetic system stimulates saliva in anticipation of receiving the fare. The body is so adaptive that it will recognize which variety of enzyme is required by the expected sweet even before we experience the first morsel.

The body responds to unusual stimuli through the sympathetic nervous system. Responses to loud, non-habituated sounds normally produce an excretion of adrenalin to prepare the body for an unfamiliar event. A person can learn to sleep near a loud train railway and not be awakened by the noise but not all responses to sound are learned. A baby, even a baby animal, has an instinctual reflex to loud noises. Even if the noise is familiar, hearing it at an unexpected interval can cause a startle response.

The parasympathetic nervous system is regulated through the vagus nerve which also regulates the motor impulses of the vocal cords. The vagus nerve through the spinal cord has a direct pathway to the brain. Through entrainment of the vocal cords and the vagus nerve, the sounds produced by the vocal cords can be perceived as a holographic representation of the regulating parasympathetic nervous system.

BioAcoustically Biological Entrainment

The Central Nervous System (CNS) is an interactive intranet that allows constant information from millions of body processes -- which keep us functioning as an inclusive unity of atoms, cells, tissues, organs and systems -- to collaborate. The majority of these activities unite with the brain through the twelve cranial nerves; in particular the vagus nerve plays a significant role in these processes.

Human BioAcoustics offers a glimpse into the mathematical modeling and understanding of that CNS process through entrainment of the vagus nerve to the vocal cords. Since the vagus nerve is a direct pathway to the brain, and the vocal cords lie within the structures of the vagus nerve bundle, the voice can be perceived as a direct frequency representation of the sympathetic and parasympathetic expressions of the body.

At present, BioAcoustic sound presentation is designed to allow the skin to accept the sounds being presented. Ongoing studies have shown that changing the timing of the frequency formulation protocols allows organs to be directly targeted for intervention. Using a vocal sample in comparison to the known principles of the body's Mathematical Matrix allows frequency intervention to support the intrinsic conduct of self-healing.

Through BioAcoustics, the self-healing is often perceived as being so natural that people sometimes insist that it was just time for the body to get well on its own. A video demonstration of the management of gout pain by manipulating the body's frequency antidote for gout shows the absolute dominion over gout pain using BioAcoustic sound presentation. The video shows an MD who was experiencing the pain, redness and swelling of gout, as the symptoms are provoked and then eliminated. This was repeated several times in the same session by the presentation and withdrawal of frequencies known to support the body in dealing with the symptoms of this very painful type of arthritis.

This influence of the body's ability to respond to low frequency sound has repeatedly been demonstrated. Case study videos showing the testing of muscle strength and weakness; the stimulation of B12 to increase strength and stamina; the control of adrenalin related behaviors in children; and the dominion over muscle related trauma and stress (multiple sclerosis for instance) provide ample proof that BioAcoustic brain wave entrainment can influence the structure and function of the body.

Biofeedback is used to identify appropriate frequency combinations for the body. Using low frequency ambient sound, the client is asked to experience the sounds for specific amounts of time and to report their responses. Reassessment is essential to insure that the sounds are being used for the appropriate amount of time.

The presentation of Frequency Equivalents seems to be akin to ingesting a vitamin. It is not the vitamin that achieves the healing; it is what the body does with the vitamin that makes the difference.

The Voice as a Holographic Representation of the Body

The voice, as music, is a calculated mathematical arrangement of sounds. The voice as spoken language is a complex, yet often mathematically chaotic, conglomeration of sounds. Each word is made up of individual sound units called phonemes. Human BioAcoustics examines the chaos, the disharmony, of these phonemes. The foundational principle on which BioAcoustics has been established is the concept that the voice is a holographic representation of the body. The frequencies, the coherence patterns and the architecture of the voice have been used to develop a computerized technology that can provide a glimpse into the individual, mathematical patterns that make up the body.

Steven Xue, Ph.D., a noted researcher in the arena of the voice and health, has shown a definitive relationship between the voice, health and aging³³. Xue has studied the role of

vocal changes and health such as the role of apnea and snoring as it relates to vocal sound waves. In a recent interview with *Perspective Magazine*, Xue reiterated the importance of understanding which vocal changes are normal and which may signal health problems³⁴.

Danielle Campbell-Angah, Editor of *ADVANCE for Audiologists and Speech Pathologists*, states that the quality of nutrients ingested has a significant impact on vocal health. Campbell explains, “On a cellular level the body depends on specific nutrients for the best performance of each individual cell. In this same way certain enzymes, co-enzymes, vitamins and minerals have an effect on the functioning of the vocal mechanism”³⁵.

Rita Holl in a 1996 article in *Alternative Health Practitioner* hypothesized that the vocal prints of clients who had been diagnosed as having osteoarthritis and/or osteoporosis would demonstrate stress in the frequency equivalents assigned to calcium and magnesium (N=26)³⁶.

Voice Analysis (Vocal Profiling) is much more than listening for allophones – a phonetic variation of a word that would differentiate the speech patterns of persons who might have a Texan or French accent. BioAcoustic computerization examines the biometric principles of the frequencies contained in the voice and then relates those patterns to an emerging Mathematical Matrix that is being assembled using several thousand case studies as a base.

Lab tests, and double blind, long term and homogeneous case studies have all provided useful information that has worked to substantiate the voice as a multi- dimensional representation of the body.

Conclusion

It is the intention of this paper to present information to solidify a foundational theory which will explain the obvious influences of sound, voice, rhythm and song as a format to manage and support optimal human form and function through BioAcoustic evaluation and entrainment using low frequency sound presentation.

Merriam-Webster (www.m-w.com) defines “bioacoustics” as: “a branch of science concerned with the production of sound by, and its effects on, living systems.” This term, as applied to humans, now refers specifically to the research concerning voice spectral analysis and the presentation of individualized sound frequency formulations to support inherent health and wellness.

Over the last 20 years, this innovative, ground-breaking field of study has utilized Vocal Profiling and low frequency analog sound presentation, to reveal an inherent Mathematical Matrix in support of the self-healing body. This novel approach has provided an accumulation of impressive evidence that is staggering in its implications for SELF HEALTH.

DISCLAIMER

Human BioAcoustics, at present, is used only as a research tool, and is not used or intended to commonly diagnose, prescribe for, treat or claim to prevent, mitigate or cure disease or illness. Any claim(s) to the contrary are denied.

Profiles

Case Study Profiles

The following four profiles provide examples of a few of the areas of research being explored by Sound Health.

Autism – vaccination risk factors

Structural Trauma – gaining comfort and control over structure issues

BioChemical Evaluation – reversing Macular Degeneration

Environmental Toxin Exposure – World Trade Center – Ground Zero toxins

Additional case studies can be downloaded at www.vocalprofiling.com. A power point entitled “Breaking the Sound Barriers of Disease” is located on the right side of the front page under WHAT’S NEW.

Can BioAcoustics be used to manage Autistic Response?



"Recovered"
Autistic

Jocelyn is 8 years old and had been diagnosed with hypolexia, a form of autism, which has affected her since the age of 3.

A Vocal Profile revealed that Jocelyn was likely highly sensitive to bovine protein. Changing her diet has relieved the symptoms of Autism. Even her ingestion a small amount of milk can cause autistic symptoms to reoccur.

Low-frequency sound presentation has been able to relieve the symptoms should she accidentally ingest milk or milk protein.

The technique used with Jocelyn is highly experimental but the results are consistent with other known causes of autism. Jocelyn was found to be sensitive to bovine milk from birth. If you compound this information with the fact that some vaccinations are cultured on milk and wheat proteins, it follows that the vaccination may have contributed to her allergic responses in that the symptoms started a few months after her standard MMR immunizations.

McArthur resident says he was healed by low frequency sound

For McArthur resident Bob Bethel, the idea of using sound to heal was once a far-fetched notion.

In 1993, Bethel survived a serious motorcycle accident that left his lower right leg severely damaged. Several major surgeries and hours of reconstructive surgery were required to create the illusion that his leg muscles were intact. Bethel's physicians had little hope for a complete recovery and told Bethel to consider himself lucky to be alive.

Unable to continue his law practice in Florida, Bob moved home to Vinton County to recuperate. He had little hope that he would ever be able to practice law again and still less hope that his passion for tennis would be a part of his future.



While browsing at a local grocery, Bethel met a fellow tennis player. During this brief encounter, Bethel learned that a nearby research institute, Sound Health Alternatives, was conducting experiments to test the idea that low frequency sound could be used to help recover muscle strength and control.

Bob knew that he was beyond the normal [18-24 months post rehabilitation] marker and that he was likely to stay at his present level of improvement. "I'm a lawyer and an engineer, so I was skeptical," Bethel said, but he had little to lose and nothing else had helped, so he dubiously decided to give it a try.

At the research clinic located in Southeastern Ohio, Bob met Sharry Edwards, Sound Health Alternatives founder and chief researcher. Bethel's voice was analyzed. A portable tone box was then programmed to emit the stressed frequencies. Bethel was very intrigued by the obvious effect that the sounds from the tone box were having on his muscles.

Today, Bethel is no longer a skeptic. "The swelling is gone. There is no pain anymore. I don't even think of my leg as being injured anymore. I had severe limping and couldn't run at all. Now I can run, dodge, jump," states Bethel in a very matter of fact manner. "I'm now matching Bill (the person he met in the grocery) on the courts step for step...something I never thought I would be able to do."

The program designed for Bethel worked specifically with the muscles of the lower leg to help the body provide tone and pain relief. Both Bethel and Edwards were surprised that he improved so dramatically that he now gives tennis lessons and plays whenever his busy schedule allows.

News of his case enticed TV crews from England and Japan to travel to America in order to film his progress. An American public broadcasting team was amazed recently as they filmed Bethel running up a steep flight of steps – taking them two at a time!

Bethel's success story is just one of over 6,000 case studies conducted since the research institute was established in 1991. A plethora of research case studies show how voice analysis and sound presentation have helped the body ease many kinds of stress and disease.

"Although we can work independently, we prefer to provide pre-management information to health and medical practitioners," Edwards said. "We aren't exactly sure how it works but people in pain don't care how it works as long as they aren't feeling the pain anymore."

"We can show the voice is a representation of the body's energy patterns and that everything at its base is energy. We have just found a way to look at the vocal print as a holograph of what is going on through the body systems" Edwards said.

Work in this field, dubbed "Human BioAcoustics" by Edwards, is most closely akin to biofeedback and is just now being perceived as a complement to integrative and preventive health practices. Edwards has presented dozens of papers to conferences across the country concerning her research and findings.

"BioAcoustics has a place in health care. We can assess clients, confer with their health care practitioners and suggest programs of intervention. We provide insight into what may be happening with a person. We offer the opportunity to look at the body as a whole. Many times we can see directions that haven't even been considered," Edwards said.

For people like Bethel, it is a miracle. He has his life back. Something he thought would never happen. Once a skeptic, he now admits that BioAcoustics may well be the medicine of the future.

Portions of this article were reprinted from the Vinton County Courier - McArthur, Ohio – September, 1999.

Retina Bleeding with Macular Degeneration



Mary Margaret

In Mary Margaret's own words:

"On Thursday morning, the most remarkable thing had happened. My left eye stopped bleeding! For the entire last year, I've had small bleeds on the upper right quadrant of my retina and a small bleed in the middle of the retina toward the bottom of my left eye.

Since then I have stayed on the tones. Sharry, my eyes are most definitely improving. More light is moving through the blind spot. My blind spot is the size of a dime within my eyes or the size of a palm of someone's hand in front of my face.

In addition, more good news is that the special glasses from the Sight Center are now too strong. However, nothing could have prepared me for what happened the following week.

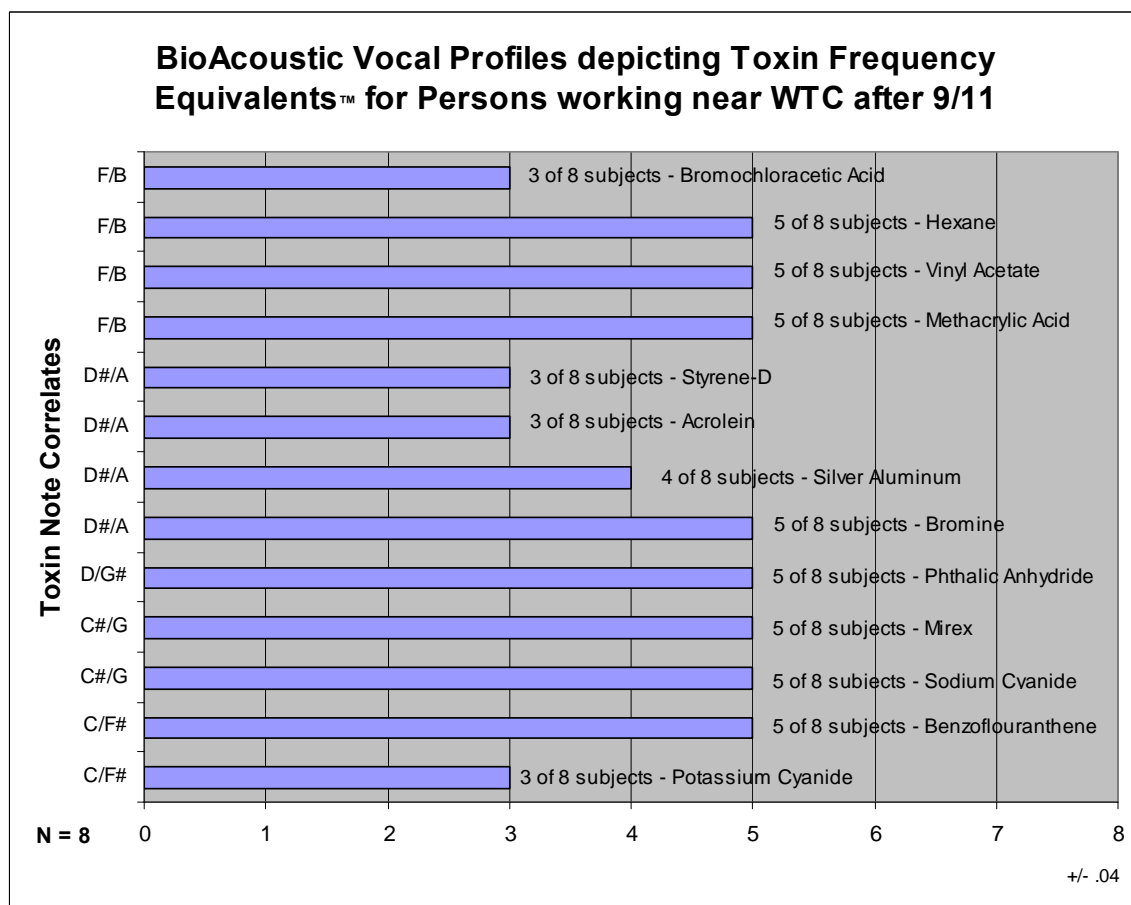
I went to a new ophthalmologist here in Hamilton, Ohio. After examining my eyes, he said he had to change my prescription for my contact lenses because my vision has improved. You may wonder why on earth I was wearing contact lenses. The lenses are to correct what little vision remains – my peripheral visions. Sharry, this is the same prescription I have had for probably 15 years, at least 8 years before the time I had gotten ill. Yet the doctor was not telling me that my prescription was too strong! So this means not only is my peripheral vision expanding, and the vision I do have is sharper and I can discern color, and light is coming thru the blind spot, the non blind part of my eyes are improving.

Thank you for giving me back my song and with that song, my laughter."

UPDATE: 2003 – Mary Margaret is no longer legally blind. She doesn't use her glasses except to read. She can drive herself around and is in great spirits. Her sight is returning, she has returned to a full time career, the macular degeneration has receded and she is energetic and ecstatic about her new life.

World Trade Center Toxins

Two Human BioAcoustic group studies were conducted for personnel working at the World Trade Center devastation site. Below is the graphic result of the first study showing the consistent toxins found within the vocal prints of the engineering personnel working at Ground Zero. From this study, a potential cause of the Fireman's Cough was determined and later confirmed for a small sample of volunteers. A second study done at the invitation of the Fireman's Union confirmed the findings of the initial study. An in-depth evaluation of the data revealed that an early age onset breast cancer gene has an identical frequency as the toxin that seems to be causing the Fireman's Cough. Sound Health was invited to evaluate the hundreds of additional personnel working at Ground Zero. Funding is the only obstacle that kept this research from moving forward to include everyone that may have been affected by the WTC toxins.



Graph showing the prevalence of 13 specific toxin Frequency Equivalents that were identified from the vocal prints of engineering personnel working at Ground Zero.

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For abstract

It is the intention of this paper to present a foundational theory to explain the influence of sound, voice, rhythm and song as those forms of frequency manage and support optimal human form and function through BioAcoustic evaluation and entrainment using low frequency sound presentation.

Over the last 20 years, this innovative, ground-breaking science has utilized voice spectral analysis (Vocal Profiling) and low frequency analog sound presentation, to reveal an inherent Mathematical Matrix of the body that seems to be able to predict, guide and maintain intrinsic form and function. This novel approach has provided an accumulation of impressive evidence that is staggering in its implications for health and healing.

Merriam-Webster (www.m-w.com) defines “bioacoustics” as: “a branch of science concerned with production of sound by, and its effects on, living systems.” This term, as applied to humans, now refers specifically to the research pioneered by Sharry Edwards in the 1970’s using voice spectral analysis and the presentation of sound frequency to support normal form and function. Human BioAcoustics is experimental in nature and is not intended to diagnose, prescribe for, treat or claim to prevent, mitigate or cure disease.

About the author

By: Kathy Fucetola

In this day and age of modern science you would not expect to see a major contribution to medicine come from any place other than a prestigious medical research facility or a well funded commercial venture. That is obviously not the case if you consider the field of Human BioAcoustics.

Sharry Edwards, M.Ed., the recognized pioneer of Human BioAcoustics, was born and raised in rural, poverty-stricken Southern Ohio. In her early years she lived in a converted corn crib without electricity, without running water, without central heat or even an indoor toilet. Her early education was severely limited. She attended a four room school house that had no library, no gymnasium, no indoor plumbing and no music program.

As most people in the United States, and probably the world are aware, Appalachia is not known for its devoted support of education. Sharry is the first person in her family to finish high school, much less receive a college degree.

In Sharry's words, "I was raised in Southeastern Ohio when education was not a priority. It took me twelve years to finish my undergraduate degree a few courses at a time. I was a working mother of three small children but I did it. I went on to finish a Master's and was admitted to a doctoral program at Ohio University but NO formal education could have prepared me for developing the field of Human BioAcoustics."

Sharry has devised one of the most sophisticated scientific protocols that has provided a Mathematical Matrix Model for the structure and function of the human body. This is a viable, demonstrable, living Model that earned Sharry the honor of being named the SCIENTIST OF THE YEAR in 2001 by the Foundation for New Science.

Years of research have culminated in a foundation for Human BioAcoustics that has provided the necessary techniques to develop a computerized voice assessment approach to Vocal Profiling.

Sharry Edwards has created the primary foundation for a highly innovative approach to health and wellness. As she works with medical professionals to increase awareness of the effects of frequency on the human body, Sharry enthusiastically and tirelessly works to bring this information to the public. Her appointment as a faculty member at Capital University's Integrative Medicine program allows her to share the techniques with physicians and other health care professionals on a regular basis.

The emerging field of Human BioAcoustics has been developed with a minimum of support from the medical community, the government or private funding. Had it not been for the courage, tenacity, determination and just plain fortitude, that is the basic nature of Sharry Edwards, Human BioAcoustics would not be a part of our future. The evidence speaks for itself! Human BioAcoustics can help the body identify and reverse its own disease. Sharry Edwards' work has provided a monumental leap into the next evolutionary step in medicine.